



Women's Health Care Bibliography September 2003

1: Acad Med. 2003 Sep;78(9):877-84.

Development of an Interdisciplinary Women's Health Training Model.

Henrich JB, Chambers JT, Steiner JL.

In response to expanded residency training requirements in women's health, faculty from internal medicine, obstetrics/gynecology, and psychiatry at Yale University School of Medicine established an interdisciplinary women's health training and education model, the Interdisciplinary Women's Health Clinic (IWHC). The model was one component of a larger, comprehensive women's health program at Yale funded by the Department of Health and Human Services between 1996 and 2000 under the National Centers of Excellence in Women's Health (CoE) designation. This article describes the structure and function of the model, its value to residents and the institution, and its limitations that led to its closure when Department of Health and Human Services support ended. The IWHC was designed as a consultation service that augmented the primary care provided to low-income, minority-group women in an established outpatient primary care setting. An interdisciplinary team of residents and faculty provided and coordinated a range of services for patients and participated in a weekly core curriculum. The model was an important resource to residents and provided high-level integrated care to patients. The combined educational experience helped refine a core interdisciplinary women's health curriculum. Despite these benefits, the IWHC could not be sustained outside the financial and programmatic structure of the larger CoE program. This experience suggests that longitudinal models where residents from different disciplines train in a shared educational and clinical setting may be more durable. Interdisciplinary models are effective ways to train residents and provide integrated care to women. The model's success depends on highly developed collaborative relationships between faculty, nonclinical sources of support, and long-term institutional commitment.

PMID: 14507615 [PubMed - in process]

2: Am J Cardiol. 2003 Sep 1;92(5):533-7.

Association of lipoprotein(a), insulin resistance, and reproductive hormones in a multiethnic cohort of pre- and perimenopausal women (The SWAN Study).

Sowers M, Crawford SL, Cauley JA, Stein E.

Because evidence suggests lipoprotein (Lp(a)) may be an important cardiovascular risk factor in women, we evaluated whether reproductive hormones may influence Lp(a) concentrations and insulin resistance in a large multicenter study of women transitioning to post menopause. Data were taken from the Study of Women's Health Across the Nation (SWAN), a prospective multiethnic study of menopausal transition (1,368 Caucasians, 808 African-Americans, 220 Chinese, 216 Hispanic, and 251 Japanese). Blood was assayed for Lp(a), follicle stimulating hormone, estradiol (E2), testosterone, and sex hormone binding globulin (free estradiol index and free androgen index), thyroid stimulating hormone, and glucose and insulin (to calculate insulin resistance). African-American women had twofold higher mean Lp(a) values than women of the other 4 race/ethnic groups, adjusted for body mass index (BMI). Lp(a) was modestly correlated with E2 ($r = 0.10$) in women without self-reported diagnosed heart disease but not in women with self-reported heart disease. Lp(a) was positively associated with log insulin resistance in women without self-reported heart disease but not in women with self-reported heart disease, an association that was not significant after adjusting for ethnicity, BMI, smoking, age, and site. Race/ethnicity, particularly being African-American, accounted for most of the explained Lp(a) variations. Lp(a) was very modestly associated ($r = -0.04$) with insulin resistance after adjusting for ethnicity and BMI, and this association was not modified by reproductive hormones, including androgens.

PMID: 12943872 [PubMed - in process]

3: Anesth Analg. 2003 Sep;97(3):715-7.

Continuous paravertebral catheter and outpatient infusion for breast surgery.
Buckenmaier CC 3rd, Klein SM, Nielsen KC, Steele SM.

Department of Anesthesiology, Duke University Medical Center, Durham, North Carolina, USA. chester.buckenmaier@na.amedd.army.mil

PMID: 12933392 [PubMed - indexed for MEDLINE]

4: Arch Intern Med. 2003 Sep 22;163(17):2041-50.

Prevalence and correlates of panic attacks in postmenopausal women: results from an ancillary study to the Women's Health Initiative.

Smoller JW, Pollack MH, Wassertheil-Smoller S, Barton B, Hendrix SL, Jackson RD, Dicken T, Oberman A, Sheps DS; Women's Health Initiative Investigators.

Department of Psychiatry, Massachusetts General Hospital, Boston, MA 02114, USA. jsmoller@hms.harvard.edu

BACKGROUND: Panic attacks are known to be more common in women than in men, but the prevalence and correlates of panic in the postmenopausal period have not been well defined. **METHODS:** Cross-sectional survey of 3369 community-dwelling postmenopausal women enrolled between December 1, 1997, and November 30, 2000, in the Myocardial Ischemia and Migraine Study, a 10-center ancillary study of the 40-center Women's Health Initiative. Participants, aged 50 to 79 years and predominantly white (73%), completed questionnaires about the occurrence of panic attacks in the previous 6 months and about migraine headaches and underwent 24-hour ambulatory electrocardiographic monitoring. The 6-month prevalences of full-blown and limited-symptom panic attacks were calculated, and their associations with other socio-demographic and clinical variables were examined in multivariate

analyses. RESULTS: One of the panic attack types was reported by 17.9% (95% confidence interval, 16.6%-19.2%) of women (full-blown attacks, 9.8%; limited-symptom attacks, 8.1%). Adjusting for age and race or ethnicity, full-blown panic attacks were more common in women with a history of migraine, emphysema, cardiovascular disease, chest pain during ambulatory electrocardiography, and symptoms of depression. Full-blown panic attacks were associated in a dose-response manner with negative life events during the past year. Panic attacks were associated with functional impairment even after adjusting for co-morbid medical conditions and depression. There was no significant association with self-reported use of hormone replacement therapy. CONCLUSIONS: Panic attacks may be relatively common among postmenopausal women and seem to be associated with stressful life events, medical comorbidity, and functional impairment.

PMID: 14504117 [PubMed - in process]

5: Arch Phys Med Rehabil. 2003 Sep;84(9):E6.

Postural control in elderly women with knee osteoarthritis: YoungMoo Na (Inje University Ilsan Paik Hospital, Goyang, Republic of Korea); Kil Byung Lim; Sung Joo Joo, e-mail: nym@ilsanpaik.ac.kr.

OBJECTIVE: To examine the effect of painful knee osteoarthritis on baseline balance and the relationship between balance measures and clinical measures. Design: Cross-sectional, observational, and controlled study. Setting: Sports medicine laboratory. Participants: 22 healthy women and 26 women with unilateral knee pain (age range, 60-80y). Interventions: Not applicable. Main Outcome Measures: Outcome measures included 6 force platform measures, ambulatory and transfer knee-pain intensity score (visual analog scale [VAS]), and disease burden (Kellgren-Lawrence score). The force platform measures obtained using the Balance Master System, which included weight-bearing symmetry, sway, and movement time during performing 6 tasks: weight bearing and squat, unilateral stance with eyes open, rhythmic weight shift, sit to stand, tandem walk, and step up and over. Results: On-axis velocity (deg/s) and directional control (%) in front and back rhythmic weight shift, and rising index (% body weight) in sit to stand were lower in women with unilateral knee pain ($P < .05$). Center of gravity (COG) sway velocity (deg/s) during unilateral stance in painful legs was greater than that in subjects' other legs. The weight of women with unilateral knee pain loaded less on the painful side during 30 degrees and 60 degrees squats and during sit to stand ($P < .05$). Movement time during step up and over on the painful side was longer than that on the pain-free side ($P < .05$). Ambulatory knee-pain intensity (VAS) had a linear relationship with the movement time during step up and over on the painful side ($r = .42$). Conclusion: Avoidance of pain associated with limb loading and decline in postural control ability were demonstrated in elderly women with unilateral knee pain. Based on these results, further studies should be carried out to correlate the avoidance and decline with the falls in patients with painful knee osteoarthritis.

PMID: 13680611 [PubMed - as supplied by publisher]

6: Breast J. 2003 Sep-Oct;9(5):431-8.

Hot flashes in breast cancer survivors.

Hoda D, Perez DG, Loprinzi CL.

Mayo Clinic, Rochester, Minnesota.

Hot flashes can be a major problem for patients with a history of breast cancer. The precipitation of menopause in premenopausal women who undergo chemotherapy for breast cancer can lead to the rapid onset of hot flash symptoms that are more frequent and more severe than those associated with natural menopause. In addition, tamoxifen, historically the most commonly prescribed pharmacologic agent for the treatment of breast cancer, is associated with hot flashes in more than 50% of its users. Although estrogen relieves hot flashes in 80-90% of women who initiate treatment, its use in women with a history of breast cancer is controversial, and most physicians in the community will not use this treatment modality. In addition, the results of the long-awaited Women's Health Initiative study and other recent studies suggest that long-term estrogen therapy should not be recommended for most women for a variety of reasons. However, hot flashes in breast cancer survivors should no longer be considered untreatable, as there are many pharmacologic and non-pharmacologic treatments that can help alleviate this problem. This article reviews the current strategies for the management of hot flashes in breast cancer survivors and the evidence supporting their use.

PMID: 12968972 [PubMed - in process]

7: Cancer. 2003 Sep 1;98(5):894-9.

Widening disparity in survival between white and African-American patients with breast carcinoma treated in the U. S. Department of Defense Healthcare system.

Jatoi I, Becher H, Leake CR.

Department of Surgery, U. S. Army Hospital, Heidelberg, Germany.
ismail.jatoi@us.army.mil

BACKGROUND: In the U. S., age-adjusted breast carcinoma mortality rates among white and African-American women have been diverging during the last 20 years. Some investigators speculate that the widening disparity is due to inequalities in access to healthcare, with African Americans having less access to necessary healthcare and improved therapies. Others argue that differences in tumor biology or some extrinsic influences on cancer etiology and behavior may account for the widening disparity. To examine this issue further, the authors compared trends in survival among white and African-American women diagnosed with breast carcinoma in the U. S. Department of Defense (DoD), an equal access healthcare system.

METHODS: The medical records of all women diagnosed with primary breast carcinoma between 1980-1999 were retrieved from the U. S. DoD Automated Central Tumor Registry (ACTUR). Variables selected for further analysis were date of diagnosis, date of birth, vital status and date of death if applicable, race (black, white, and others), and stage of tumor. Because the database does not contain causes of death, overall survival was investigated. The effect of year of diagnosis and race on overall survival was analyzed using the Cox proportional hazards model stratified by age at diagnosis (1-year age groups). Calculations were performed separately by disease stage for all stages combined and stratified by stage.

Statistical analyses were performed using the statistical software package SAS.

RESULTS: After deleting observations with missing or implausible information regarding patient age, gender, and follow-up time, the final dataset was comprised of 23,612 women with primary breast carcinoma. The survival of African-American women compared with white women demonstrated an increasing ratio with calendar period. Although the hazard ratio was 1.269 for women diagnosed with breast carcinoma during the calendar period 1980-1984, it increased to 1.849 for those diagnosed between 1995-1999, which is a ratio of 1.46. For this period, the

interaction between race and period was found to be significant ($P = 0.04$).

CONCLUSIONS: The results of the current study demonstrated that breast carcinoma survival rates among white and African-American patients, adjusted for age and stage, are diverging in the U.S. DoD healthcare system. Thus, inequalities in access to healthcare most likely are not solely responsible for the widening racial disparities in outcome reported among women diagnosed with breast carcinoma. Copyright 2003 American Cancer Society.

PMID: 12942554 [PubMed - indexed for MEDLINE]

8: Circulation. 2003 Sep 15 [Epub ahead of print].

Sex Hormone Levels and Risk of Cardiovascular Events in Postmenopausal Women.

Rexrode KM, Manson JE, Lee IM, Ridker PM, Sluss PM, Cook NR, Buring JE.

Department of Medicine, Division of Preventive Medicine, Brigham and Women's Hospital and Harvard Medical School; Department of Epidemiology, Harvard School of Public Health; Reproductive Endocrine Unit Assay Laboratory, Massachusetts General Hospital; and Department of Ambulatory Care and Prevention, Harvard Medical School, Boston, Mass.

BACKGROUND: Despite diffuse effects of sex hormones on the cardiovascular system, few prospective studies have examined the relationship of plasma androgens and estrogens with risk of cardiovascular disease (CVD) in postmenopausal women.

METHODS AND RESULTS: A nested case-control study was performed among women in the Women's Health Study. Two hundred women who developed CVD were matched 1:1 by age, smoking, and postmenopausal hormone therapy (HT) to controls who remained free of CVD. We measured testosterone, estradiol, and sex hormone binding globulin (SHBG) levels and calculated free androgen index (FAI), free estradiol index, and the FAI/free estradiol index ratio. Results were stratified by HT use. Among HT nonusers, cases had significantly higher androgen profiles (higher median FAI and lower SHBG levels) than controls. After adjustment for age, smoking, use of aspirin, vitamin E, and alcohol, family history of myocardial infarction, and physical activity, nonusers in the lowest SHBG quartile had an OR of 2.25 (95% CI, 1.03 to 4.91) for CVD, and there were significant trends across FAI quartiles (P for trend=0.03). Additional adjustment for body mass index, hypertension, diabetes, and elevated cholesterol eliminated associations with SHBG and FAI. Among women using HT, no significant differences in hormones or SHBG were observed among women who developed CVD and controls. **CONCLUSIONS:** Among HT nonusers, lower SHBG and higher FAI levels were noted among postmenopausal women who developed CVD events, but this was not independent of body mass index and other cardiovascular risk factors. Estradiol levels were not associated with risk of CVD in HT users or nonusers.

PMID: 12975257 [PubMed - as supplied by publisher]

9: Clin Nurse Spec. 2003 Sep;17(5):243-248.

A Successful, Long-Term Exercise Program for Women With Fibromyalgia Syndrome and Chronic Fatigue and Immune Dysfunction Syndrome.

Karper WB, Stasik SC.

SUMMARY: This article describes an ongoing, long-term clinical exercise program for women with fibromyalgia syndrome (FMS), some of whom also have chronic fatigue and immune dysfunction syndrome (CFIDS). The recorded outcomes from the most recent year of the program also are reported. Participants engaged in sessions lasting 50-70 minutes, 5 days per week; each session involved aerobic activity, resistance training, and other dynamic exercise. One group was in the program for 3 years and another group was in the program for 2 years. Program outcomes for the year (comparing beginning and end-of-year results) are presented for both groups on physical fitness, psychosocial, and FMS/CFIDS symptoms. The outcomes support that all of the women appear to have benefited from the program in numerous ways, suggesting that the program works. Also, those outcomes are in agreement with past research reported in this journal. Implications for clinical nurse specialists working with FMS/CFIDS patients are discussed.

PMID: 14501305 [PubMed - as supplied by publisher]

10: Clin Obstet Gynecol. 2003 Sep;46(3):616-622.

Parenteral Opioids for Labor Analgesia.

Campbell DC.

SUMMARY: Labor pain relief is an important aspect of women's health that has historically been neglected. Epidural analgesia is the only consistently effective method of labor pain relief and has recently undergone substantial improvements to address the concerns of both parturients and obstetric care providers. With increased physician awareness, these recent advances are becoming more widely accepted and routinely available for all laboring parturients. Unfortunately, an increasing number of women are presenting to maternity wards with an absolute contraindication to epidural labor analgesia. The present review will provide an outline of the recent developments in parenteral analgesic options which complement modern epidural analgesic techniques. Protocols for the initiation of "state-of-the-art" parenteral analgesic techniques are provided as a guide to facilitate effective, modern, parenteral labor analgesia.

PMID: 12972743 [PubMed - as supplied by publisher]

11: Curr Drug Targets Immune Endocr Metabol Disord. 2003 Sep;3(3):205-9.

Breast cancer: biological characteristics in postmenopausal type 2 diabetic women. Identification of therapeutic targets.

Guastamacchia E, Resta F, Mangia A, Schittulli F, Ciampolillo A, Triggiani V, Licchelli B, Paradiso A, Sabba C, Tafaro E.

Department of Emergency and Organ Transplantation, University of Bari, Bari, Italy. e.guastamacchia@endo.uniba.it

HYPOTHESIS: Epidemiological data have suggested a possible relationship between diabetes mellitus and cancer risk, particularly breast cancer. We set out to investigate the effect of diabetes mellitus on the expression of estrogen and progesterone receptors and on the proliferative activity of primary breast cancer. **METHODS:** We selected 77 diabetic women and 578 control patients all in post-menopause and diagnosed with primary breast cancer. All patients underwent surgical excision of the tumor and on the specimens were performed an assessment

of estrogen receptor and progesterone receptor and proliferative activity assay by (3)H-Thymidine incorporation. RESULTS: Diabetic women showed a decreased proliferative activity, while having the same estrogen receptor and progesterone receptor status and mean cytoplasmic concentration of their receptors than control group. Insulin treated women had a lower proliferative activity than non-insulin treated ones. CONCLUSION: Hyperinsulinemia and hyperglycemia influence in negative way the proliferative activity of diabetic women, likely inducing the expression of transforming growth factor beta, despite the high serum levels of Insulin-like growth factor and estrogen.

PMID: 12871027 [PubMed - in process]

12: Eur J Obstet Gynecol Reprod Biol. 2003 Sep 10;110(1):94-8.

Short-term results from laparoscopic dissection of uterine vessels in women with symptomatic fibroids.

Holub Z, Lukac J, Kliment L, Urbanek S.

Department of Obstetrics and Gynecology, Endoscopic Training Centre, Baby Friendly Hospital, Vancurova Street 1548, 27258, Kladno, Czech Republic

OBJECTIVE: To assess the outcome, tissue trauma, clinical improvement and the reduction in size of fibroid following laparoscopic dissection of uterine vessels (LDUV). SETTING: Department of Obstetrics and Gynaecology, Endoscopic Training Centre, Baby Friendly Hospital, Kladno, Czech Republic. DESIGN: An uncontrolled case series of 17 consecutive women who underwent LDUV using ultrasonically activated shears for the treatment of fibroids over two years. Ultrasound imaging was carried out before and three and six months following treatment. The tissue markers (C-reactive protein (CRP), Interleukin-6 (IL-6), Creatin kinase (CK) and white blood cell count) were studied preoperatively, on the first and third postoperative day. RESULTS: All patients underwent successful LDUV without intraoperative complications. Tissue markers results show that the LDUV performed using ultrasonically activated shears is associated with insignificant tissue damage. Time of surgery ranged from 30 to 50min (mean 39min). Mean blood loss was less than 30ml and mean hospital stay was 2.3 days. Three and six months after surgery, respectively, average reduction in uterine volume was 23.6 and 36.8% and average reduction in dominant fibroid was 28.6 and 56.8%. 94.1% of women had improvement in menorrhagia or dysmenorrhoea, and 91.6% had improvement in bulk-related symptoms or pelvic pain six months after treatment. CONCLUSION: Uterine volume and dominant fibroid were reduced and symptoms were improved by LDUV. The procedure of laparoscopic dissection of uterine vessels can be completed within 30-40min with only minimal blood loss and short hospital stay if performed by experienced laparoscopists.

PMID: 12932880 [PubMed - in process]

13: Eur J Obstet Gynecol Reprod Biol. 2003 Sep 10;110(1):63-5.

Longevity after early surgical menopause-the long-term effect of a permanent cessation of reproductive function and female sex hormone loss.

Nilsson PM, Nilsson E, Svanberg L, Samsioe G.

Department of Medicine, University Hospital, S-205 02, Malmö, Sweden

OBJECTIVE: To investigate longevity in women after bilateral salpingo-oophorectomy (BSOE), not given hormonal replacement therapy (HRT) post-operatively, as compared to the national mean. STUDY DESIGN: Long-term follow-up study of a historical cohort of young women undergoing BSOE in the early 20th century at the General Hospital, Malmo, Sweden. Comparison was made with mean life expectancy in corresponding birth cohorts. RESULTS: No difference in life expectancy was recorded in 152 women with an early menopause caused by BSOE and not substituted with HRT, as compared to national statistics of contemporary women. Half of the operated women died of cardiovascular disease and a minority of cancer, none of which was a breast cancer. CONCLUSION: Permanent loss of female sex hormones and reproductive function in early life does not seem to influence longevity but may change patterns of morbidity and mortality.

PMID: 12932874 [PubMed - in process]

14: Eur Spine J. 2003 Sep 19 [Epub ahead of print].

Vertebroplasty for osteoporotic spine fracture: prevention and treatment.

Mehbod A, Aunoble S, Le Huec JC.

Twin Cities Spine Center, Minneapolis, Minnesota, USA.

There is a relatively high prevalence of osteoporotic vertebral compression fractures (VCFs) in the elderly population, especially in women aged 50 or older. The result of these VCFs is increased morbidity and mortality in the short and long term. Medical treatment of these fractures includes bed rest, orthotics, analgesic medication and time. Percutaneous vertebroplasty (PVP) consists of percutaneous injection of biomaterial, such as methylmethacrylate, into the VCF to produce stability and pain relief. Biomechanical testing has shown that PVP can restore strength and stiffness of the vertebral body to the pre-fracture levels. Clinical results show immediate and maintained pain relief in 70-95% of the patients. Possible major complications include cement leakage into the spinal canal or into the venous system. Additionally, percutaneous vertebroplasty may alter the normal loading behavior of the adjacent vertebral body, and there is an increased risk of adjacent segment VCF. Kyphoplasty is a new technique, which introduces a balloon into the vertebral body transpedicularly to reduce the VCF while creating a cavity for the cement injection. This technique has the benefit of kyphosis reduction as well as less cement leakage. Research continues into the development of injectable biomaterials that are resorbable and allow for new bone formation. Vertebroplasty and kyphoplasty are safe and effective in the treatment of osteoporotic VCFs. They may allow for a faster return to function, and thus avoid the morbidity associated with medical treatment.

PMID: 14505122 [PubMed - as supplied by publisher]

15: Eur Spine J. 2003 Sep 17 [Epub ahead of print].

Medical treatment of vertebral osteoporosis.

Lippuner K.

Osteoporosis Policlinic, University Hospital of Berne, 3010, Berne, Switzerland.

Although osteoporosis is a systemic disease, vertebral fractures due to spinal bone loss are a frequent, sometimes early and often neglected complication of the disease, generally associated with considerable disability and pain. As osteoporotic vertebral fractures are an important predictor of future fracture risk, including at the hip, medical management is targeted at reducing fracture risk. A literature search for randomized, double-blind, prospective, controlled clinical studies addressing medical treatment possibilities of vertebral fractures in postmenopausal Caucasian women was performed on the leading medical databases. For each publication, the number of patients with at least one new vertebral fracture and the number of randomized patients by treatment arm was retrieved. The relative risk (RR) and the number needed to treat (NNT, i.e. the number of patients to be treated to avoid one radiological vertebral fracture over the duration of the study), together with the respective 95% confidence intervals (95%CI) were calculated for each study. Treatment of steroid-induced osteoporosis and treatment of osteoporosis in men were reviewed separately, based on the low number of publications available. Forty-five publications matched with the search criteria, allowing for analysis of 15 different substances tested regarding their anti-fracture efficacy at the vertebral level. Bisphosphonates, mainly alendronate and risedronate, were reported to have consistently reduced the risk of a vertebral fracture over up to 50 months of treatment in four (alendronate) and two (risedronate) publications. Raloxifene reduced vertebral fracture risk in one study over 36 months, which was confirmed by 48 months' follow-up data. Parathormone (PTH) showed a drastic reduction in vertebral fracture risk in early studies, while calcitonin may also be a treatment option to reduce fracture risk. For other substances published data are conflicting (calcitriol, fluoride) or insufficient to conclude about efficacy (calcium, clodronate, etidronate, hormone replacement therapy, pamidronate, strontium, tiludronate, vitamin D). The low NNTs for the leading substances (ranges: 15-64 for alendronate, 8-26 for risedronate, 23 for calcitonin and 28-31 for raloxifene) confirm that effective and efficient drug interventions for treatment and prevention of osteoporotic vertebral fractures are available. Bisphosphonates have demonstrated similar efficacy in treatment and prevention of steroid-induced and male osteoporosis as in postmenopausal osteoporosis. The selection of the appropriate drug for treatment of vertebral osteoporosis from among a bisphosphonate (alendronate or risedronate), PTH, calcitonin or raloxifene will mainly depend on the efficacy, tolerability and safety profile, together with the patient's willingness to comply with long-term treatment. Although reduction of vertebral fracture risk is an important criterion for decision making, drugs with proven additional fracture risk reduction at all clinically relevant sites (especially at the hip) should be the preferred options.

PMID: 13680313 [PubMed - as supplied by publisher]

16: Expert Opin Pharmacother. 2003 Sep;4(9):1479-88.

An economic analysis of hormone replacement therapy for the prevention of fracture in young postmenopausal women.

Lamy O, Krieg MA, Burckhardt P, Wasserfallen JB.

Service de Medecine A, Department of Internal Medicine, University Hospital, Lausanne, Switzerland.. olivier.lamy@chuv.hospvd.ch

Osteoporosis is a major public health problem that will become increasingly important as our population ages. It leads to fractures that deeply affect the patients' quality of life. Osteoporosis is recognized as a leading factor in healthcare cost worldwide. For years, experts have recommended hormone replacement

therapy (HRT), consisting of oestrogen with or without progestin, as the first-line therapy to prevent bone loss in postmenopausal women. Recently published randomized, controlled trials and well-designed meta-analyses confirm that HRT has both advantages and disadvantages. The advantages include prevention of osteoporotic fractures and colorectal cancer. The disadvantages are the resulting adverse effects such as coronary artery disease, stroke, thromboembolic events, breast cancer and cholecystitis. In the light of these findings, medical associations recommend against the routine use of oestrogen and progestin for the prevention of chronic conditions in postmenopausal women. HRT, administered for the prevention of fractures in all young postmenopausal women, would have an additional cost/year of life gained that is too expensive. However, this strategy seems to be cost-effective when young postmenopausal women at high risk for fractures are selected. Even if this strategy seems attractive, the adverse effects of HRT are not acceptable. This situation implies that other treatments must be found to prevent or treat osteoporosis. Among them, calcium and vitamin D were shown to be cost-saving in osteoporosis and even costs-effective in osteopenia in young postmenopausal women.

PMID: 12943477 [PubMed - in process]

17: Fertil Steril. 2003 Sep;80(3):488-90.

Women's health initiative results: a glass more empty than full.

Strickler RC.

Department of Obstetrics and Gynecology, Henry Ford Health System, Detroit, Michigan, USA

To give perspective to the Women's Health Initiative (WHI) report. Review of the report with reference to other current literature. Women's Health Initiative was stopped early because the hazard ratio for breast cancer, although not statistically significant, met a preset Data Safety Monitoring Board statistical parameter that mandated a recommendation to close the study. Data from study years 4 and 5 that drive the statistics developed by the Data Safety Monitoring Board may not hold equal biological significance for clinicians and their patients. Women's Health Initiative has provided limited new data. Providers should resist the knee-jerk call to abandon MHT. Together, patient and provider should assess the benefit that MHT is adding/will add to each individual woman's quality of life.

PMID: 12969683 [PubMed - in process]

18: Fertil Steril. 2003 Sep;80(3):491-3.

Hormone therapy: the Women's Health Initiative has caused confusion and concern.

Reid RL.

Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, Kingston General Hospital, Kingston, Ontario, Canada

PMID: 12969684 [PubMed - in process]

19: Health Care Women Int. 2003 Sep;24(8):697-711.

The view from somewhere: locating lesbian experience in women's health.

McDonald C, Anderson B.

School of Nursing, University of Victoria, Victoria, BC, Canada.

In some circles of nursing practice and research, "women's health" is seen to stand for "women's reproductive and heterosexual health." In this article we offer a view of women's health that makes central the contextualized reality of the material, social, and discursive experiences of women's lives. We suggest that the barriers to adopting broader conceptualizations of health are grounded in pervasive ideologies that privilege biology and a traditional model of health over nonmedical determinants of health. Lesbian disclosure is a central experience in lesbian life, and, as such, is seen as an exemplar of research questions that challenges our taken-for-granted ideologies and contextualizes women's health experiences.

PMID: 12959869 [PubMed - in process]

20: Health Place. 2003 Sep;9(3):263-71.

Neighborhood poverty and self-reported health among low-income, rural women, 50 years and older.

Kobetz E, Daniel M, Earp JA.

Department of Health Behavior and Health Education, School of Public Health, The University of North Carolina at Chapel Hill, C.B. #7440, Rosenau Hall, Chapel Hill, NC 27599-7440, USA. kobetz@email.unc.edu

We examined the relationship between neighborhood socioeconomic context and self-reported health among low-income, rural women aged 50+ years, without a history of breast cancer. Tract-level census data were linked to individual level data from the baseline survey of a community trial to increase breast cancer screening rates. Generalized estimating equations were used to analyze data for 1988 women and 56 census tracts. Neighborhood poverty was associated with a greater likelihood of poor self-reported health, adjusted for age, race and socioeconomic status (OR=1.35, 95% CI=1.08-1.68). This effect was greatest for individuals with incomes below the median neighborhood income.

PMID: 12810333 [PubMed - indexed for MEDLINE]

21: Hum Reprod. 2003 Sep;18(9):1762-4.

Early ovarian ageing: a hypothesis: What is early ovarian ageing?

Lobo RA.

Department of Obstetrics and Gynecology, Columbia University College of Physicians and Surgeons, PH-16 Room 28E, 622 West 168 Street, New York, NY 10032-3784, USA. e-mail: ral35@columbia.edu

A concept of early ovarian ageing has been advanced. This theory suggests that some women will experience problems of fecundity at an early age given that the age of menopause is earlier for some women, and there is a fixed time of accelerated atresia leading up to menopause. Various components of this theory are examined

based on existing literature. While the theory has merit, and is important to consider in terms of reproductive health, it remains a hypothesis. It is also plausible to consider that a segment of the population will have later ovarian ageing in that menopause can be as late as 58 years for some women. Further, it is not known whether there really is a fixed time of accelerated atresia leading up to menopause in all women. The practical considerations dealing with this hypothetical concern also are not trivial. How will certain women with early ovarian ageing be identified, what hormonal and other factors should be measured, and what advice is reasonable for these young women?

PMID: 12923124 [PubMed - in process]

22: Int J Gynaecol Obstet. 2003 Sep;82(3):425-433.

Sexual violence and the obstetrician/gynecologist.

Uribe-Eli;as R.

Department of History and Philosophy of Medicine, Faculty of Medicine, National Autonomous University of Mexico (UNAM), Mexico City, Mexico

Sexual violence is a pathological entity that requires urgent attention. The gynecologist/obstetrician (G/O), as a medical professional in charge of women's health, especially as it pertains to women's reproductive organs, should become an active agent in the management of the socio-medical processes that constitute sexual violence. The results of a survey conducted in Mexico on the opinions and practices of G/Os regarding violence against women-especially sexual violence-are reported. It is necessary to sensitize and train G/Os and other physicians in bio-ethics, and to look for formal support of such activities in the legislative branch of government.

PMID: 14499989 [PubMed - as supplied by publisher]

23: Int J Gynaecol Obstet. 2003 Sep;82(3):347-55.

Minimally invasive surgery in gynecologic practice.

Adamyan LV.

Department of Operative Gynecology, Scientific Center for Obstetrics, Gynecology and Perinatology of Russian Academy of Medical Sciences, Moscow, Russia

The medical world is facing increasing demands for improvement of the quality of life of women of all ages. This is not possible without overall improvement of the healthcare of females, and, in particular, of the quality of surgical treatment for gynecologic pathology. Positive changes are ensured by the active introduction of minimally invasive technologies into all spheres of gynecologic practices. There are almost no medical, demographic or technical limits for the application of endoscopy in gynecology, while the benefits it provides are extraordinary. The process of positive change towards minimally invasive surgery in operative gynecology should be supported and promoted by the medical community in every possible way.

PMID: 14499981 [PubMed - in process]

24: Int J Gynaecol Obstet. 2003 Sep;82(3):249-50.

Introduction. World report on women's health 2003.

Acosta AA.

Eligio Ayala, Asuncion, Paraguay

PMID: 14499971 [PubMed - in process]

25: Int J Gynaecol Obstet. 2003 Sep;82(3):357-67.

FIGO and women's health 2000-2003.

Sheth SS.

President, International Federation of Gynecology & Obstetrics (FIGO) [2000-2003],
Mumbai, India

The International Federation of Gynecology and Obstetrics - FIGO - has been striving hard to carefully attend to women's well-being, and respect and implement their rights, the status and their health, which is well beyond the basic obstetric and gynecological requirement. FIGO is deeply involved in acting as a catalyst for the all-round activities of national obstetric and gynecologic societies to mobilize their members to participate in and contribute to, all of their endeavors. FIGO's committees strengthen these objectives and FIGO's alliance with WHO provides a springboard. The task is gigantic, but FIGO, through national obstetric and gynecological societies and with the strength of obstetricians and gynecologists as its battalion, can offer to combat and meet the demands.

PMID: 14499982 [PubMed - in process]

26: Int J Gynaecol Obstet. 2003 Sep;82(3):393-7.

Smoking as a risk factor in the health of women.

Seltzer V.

Women's Health Services, North Shore-Long Island Jewish Health System, NY, Great Neck, USA

It is estimated that more than 200 million women smoke worldwide. It is also estimated that if current smoking rates among men and women persist worldwide, by 2025, 9% of the world's deaths and disabilities will be related to tobacco use. Smoking is associated with an increased risk of cardiovascular disease, cancer (lung, cervix, pancreas, kidney, bladder, esophagus, pharynx), pulmonary disorders, cerebrovascular disease, and many other health risks. Smoking also adversely affects fertility and reproductive outcomes. Although a greater percentage of women smoke in developed than in developing countries, women in developing countries appear to be initiating smoking habits in increasing numbers. If current trends persist, the adverse effects of smoking on women's health clearly will continue to escalate.

PMID: 14499985 [PubMed - in process]

27: J Adv Nurs. 2003 Sep;43(6):555-68.

Pelvic floor dysfunction: a conceptual framework for collaborative patient-centred care.

Davis K, Kumar D.

Research Nurse and PhD Student, Department of Surgery and Gastrointestinal Motility Unit, St George's Hospital, London, UK 2Colorectal and General Surgeon, Department of Surgery and Gastrointestinal Motility Unit, St George's Hospital, London, UK.

BACKGROUND: Pelvic floor dysfunction is a disorder predominantly affecting females. It is common and undermines the quality of lives of at least one-third of adult women and is a growing component of women's health care needs. Identifying and supporting these needs is a major public health issue with a strong psychosocial and economic basis. The importance of the interdependence of mechanical, neural, endocrine and environmental factors in the development of pelvic floor dysfunction is well recognized. There is a paucity of data investigating the true prevalence, incidence, specific risk factors, poor outcome of treatment and subsequent prevention strategies for women with multiple pelvic floor symptomatology. **AIM:** The aim of this paper is to present a critical review of the literature on the mechanism, presentation and management of multiple symptomatology in pelvic floor dysfunction and to propose a conceptual framework by which to consider the impact and problems women with pelvic floor dysfunction face. **METHODS:** A comprehensive although not exhaustive literature search was carried out using medical and nursing databases BIOMED(1966-2002) NESLI (1989-2002) and EMBASE (1980-2003) CINAHL (1982-2003) and Cochrane databases using the key words 'pelvic floor dysfunction', 'incontinence(urinary and faecal)', 'genital prolapse', 'sexual dysfunction', 'aetiology', 'epidemiology' and 'treatment'. Retrospective and prospective studies and previous clinical reviews were considered for review. The articles retrieved were hand searched for further citations and referrals were made to relevant textbooks. Particular attention was paid to papers that focused on multiple pelvic floor symptoms. **FINDINGS:** Pelvic floor dysfunction affects women of all ages and is associated with functional problems of the pelvic floor. Pelvic floor dysfunction describes a wide range of clinical problems that rarely occur in isolation. Inaccurate knowledge, myths and misconceptions of the incidence, cause and treatment of pelvic floor dysfunction abound. Given the significance of the aetiological contribution of factors such as pregnancy and obstetric trauma, ageing, hormonal status, hysterectomy and lifestyle in the development of pelvic floor disorders, the assessment, management and prevention of pelvic floor dysfunction remains a neglected part of many health care professionals educational preparation. This not only has major economic but also psychosocial implications for women, the general population and women's health care providers. A conceptual framework is also discussed that considers not only the impact and difficulties women with pelvic floor dysfunction face but also areas in which health care professionals can improve assessment and eventual treatment outcomes. **CONCLUSION:** This paper demonstrates gaps in the current provision of women's health care services. Functional pelvic floor problems are perceived to have low priority compared with other health disorders, and treatment remains sub-optimal. Inherent in achieving and promoting better health care services for women is the need for better collaborative approaches to care. There is a need to identify and develop comprehensive interdisciplinary, multi-professional strategies that improve the assessment and treatment of pelvic floor dysfunction in primary, secondary and

tertiary settings. If this area of women's health care is to be improved nurses, whether community- or hospital-based, must play a front-line role in challenging and changing current practices. Education needs to be given greater priority and the development of a specialist pelvic floor nurse role explored. Such strategies could substantially influence a more effective approach to women's health care needs, result in improved treatment outcomes and liberate women from the embarrassment, social and sexual isolation, restriction to employment and leisure opportunities and potential loss of independence that multiple symptomatology can generate.

PMID: 12950561 [PubMed - in process]

28: J Am Acad Dermatol. 2003 Sep;49(3):547-50.

Porphyria cutanea tarda with menopausal exacerbation: the possible role of menstruation as natural phlebotomy.

Nishioka E, Funasaka Y, Bito T, Ito A, Tani M, Kawara A, Yoon S, Kondo M, Ichihashi M.

Department of Dermatology, Kobe University School of Medicine, Japan.

We describe a 48-year-old woman with a 12-year history of porphyria cutaneatarda who showed a remarkable exacerbation of her eruptions accompanied by high serum levels of iron and ferritin at menopause. As iron storage is known to be a triggering factor of porphyria cutanea tarda, the possible role of menstruation as natural phlebotomy to prevent porphyria cutanea tarda exacerbation is discussed.

PMID: 12963930 [PubMed - indexed for MEDLINE]

29: J Clin Endocrinol Metab. 2003 Sep;88(9):4077-9.

Estrogen bioactivity in fo-ti and other herbs used for their estrogen-like effects as determined by a recombinant cell bioassay.

Oerter Klein K, Janfaza M, Wong JA, Chang RJ.

University of California-San Diego, San Diego, California 92123, USA.

One of the most important issues in women's health concerns the risks and benefits of estrogen replacement therapy. Continual uncertainty and lack of consensus regarding estrogen replacement therapy has driven many women to seek alternative sources of estrogen, including herbal remedies. We adapted a recombinant cell bioassay to measure estrogen bioactivity in herbs. We studied, in vitro, estrogen bioactivity in red clover, dong quai, black cohosh, soy, licorice, chaste tree berry, fo-ti, and hops. Soy, clover, licorice, and hops have a large amount of measurable estrogen bioactivity, as suspected, based on previous reports using other methods. We discovered surprisingly high estrogen activity in extracts of fo-ti not previously reported. Chaste tree berry, black cohosh, and dong quai did not have measurable activity with this method. We also discovered that removal of a glycone group from soy increases its estrogen bioactivity significantly. We conclude that this recombinant cell bioassay for estradiol can be used to measure bioactivity in herbal products. The preparations of fo-ti studied had estrogen activity of 409 +/- 55 pmol/liter estradiol equivalents per microgram of herb, which is 1/300 the activity of 17beta-estradiol.

Clinical studies are underway to determine the estrogen bioactivity in women using dietary supplements containing these herbs.

PMID: 12970265 [PubMed - in process]

30: J Clin Nurs. 2003 Sep;12(5):717-25.

Nurse practitioner-client interaction as resource exchange in a women's health clinic: an exploratory study.

Donohue RK.

Simmons College, School for Health Studies, The Fenway Boston, MA 02115, USA.
rebecca.koeniger-donohue@simmons.edu

Empirical research has thoroughly documented the success of nurse practitioners (NPs) in terms of patient satisfaction and cost-effectiveness. What is missing is the in-depth knowledge of the interactive process through which this is accomplished during a clinic visit. The aim of this study was to understand the special nature and processes of NP and client encounters in the ambulatory primary care context using a resource exchange perspective. An exploratory descriptive design was used to address the following research questions: (i) What do midlife female clients expect in terms of resources to be exchanged prior to a visit with a NP in an ambulatory clinic visit? (ii) What resources are actually exchanged during the clinic visit? (iii) To what extent is there congruence between a woman's expectations and what she is actually receiving from the clinic visit in terms of resources exchanged? The participants included two women health NPs and eight midlife female clients. Data for the study were comprised of audiotaped pre- and post-encounter interviews with the clients, audiotapes of the entire clinic visits with the NP and field notes recorded by the researcher of the client visits. Content analysis was conducted using ETHNOGRAPH software. Findings indicated that clients of both NPs had surprisingly similar expectations of receipt of services as well as actual receipt of services. Resources expected and received from the visits included some combination of services, health information, trust, self-disclosure, support, affirmation, time, acceptance and respect. Results of this study suggest that resource exchange theoretical formulations can be applied to NP-client interactions to understand and explain the specific nature of resources the clients expect and receive from a NP during a woman's health clinic visit.

PMID: 12919218 [PubMed - in process]

31: J Clin Oncol. 2003 Sep 8 [Epub ahead of print].

American Society of Clinical Oncology 2003 Update on the Role of Bisphosphonates and Bone Health Issues in Women With Breast Cancer.

Hillner BE, Ingle JN, Chlebowski RT, Gralow J, Yee GC, Janjan NA, Cauley JA, Blumenstein BA, Albain KS, Lipton A, Brown S.

American Society of Clinical Oncology, Alexandria, Virginia.

PURPOSE: To update the 2000 ASCO guidelines on the role of bisphosphonates in women with breast cancer and address the subject of bone health in these women.

RESULTS: For patients with plain radiographic evidence of bone destruction, intravenous pamidronate 90 mg delivered over 2 hours or zoledronic acid 4 mg over

15 minutes every 3 to 4 weeks is recommended. There is insufficient evidence supporting the efficacy of one bisphosphonate over the other. Starting bisphosphonates in women who demonstrate bone destruction through imaging but who have normal plain radiographs is considered reasonable treatment. Starting bisphosphonates in women with only an abnormal bone scan but without evidence of bone destruction is not recommended. The presence or absence of bone pain should not be a factor in initiating bisphosphonates. In patients with a serum creatinine less than 3.0 mg/dL (265 micro mol/L), no change in dosage, infusion time, or interval is required. Infusion times less than 2 hours with pamidronate or less than 15 minutes with zoledronic acid should be avoided. Creatinine should be monitored before each dose of either agent in accordance with US Food and Drug Administration (FDA) labeling. Oncology professionals, especially medical oncologists, need to take an expanded role in the routine and regular assessment of the osteoporosis risk in women with breast cancer. The panel recommends an algorithm for patient management to maintain bone health. CONCLUSION: Bisphosphonates provide a supportive, albeit expensive and non-life-prolonging, benefit to many patients with bone metastases. Current research is focusing on bisphosphonates as adjuvant therapy. Although new data addressing when to stop therapy, alternative doses or schedules for administration, and how to best coordinate bisphosphonates with other palliative therapies are needed, they are not currently being investigated.

PMID: 12963702 [PubMed - as supplied by publisher]

32: J Nutr. 2003 Sep;133(9):2874-8.

Soy food consumption is associated with lower risk of coronary heart disease in chinese women.

Zhang X, Shu XO, Gao YT, Yang G, Li Q, Li H, Jin F, Zheng W.

Department of Medicine, Center for Health Services Research, Vanderbilt University, Nashville, TN 37232 and. Department of Epidemiology, Shanghai Cancer Institute, Shanghai 200032, China.

Soy food intake has been shown to have beneficial effects on cardiovascular disease risk factors. Data directly linking soy food intake to clinical outcomes of cardiovascular disease, however, are sparse. We examined the relationship between soy food intake and incidence of coronary heart disease (CHD) among participants in the Shanghai Women's Health Study, a population-based prospective cohort study of approximately 75,000 Chinese women aged 40-70 y at the baseline survey that was conducted from 1997 to 2000. Included in this study were 64,915 women without previously diagnosed CHD, stroke, cancer and diabetes at baseline. Information on usual intake of soy foods was obtained at baseline through an in-person interview using a validated food-frequency questionnaire. Cohort members were followed biennially through in-person interviews. After a mean of 2.5 y (162,277 person-years) of follow-up, 62 incident cases of CHD (43 nonfatal myocardial infarctions and 19 CHD deaths) were documented. There was a clear monotonic dose-response relationship between soy food intake and risk of total CHD (P for trend = 0.003) with an adjusted relative risk (RR) of 0.25 (95%CI, 0.10-0.63) observed for women in the highest vs. the lowest quartile of total soy protein intake. The inverse association was more pronounced for nonfatal myocardial infarction (RR = 0.14; 95% CI, 0.04-0.48 for the highest vs. the lowest quartile of intake; P for trend = 0.001). This study provides, for the first time, direct evidence that soy food consumption may reduce the risk of CHD in women.

PMID: 12949380 [PubMed - in process]

33: J Rheumatol. 2003 Sep;30(9):2045-53.

Do employment and family work affect the health status of women with fibromyalgia?

Reisine S, Fifield J, Walsh SJ, Feinn R.

Department of Behavioral Sciences and Community Health, University of Connecticut School of Medicine, 263 Farmington Avenue, Farmington, CT 06030, USA.
Reisine@nsol.uchc.edu

OBJECTIVE: To assess health status differences of women with fibromyalgia syndrome (FM) who are employed and not employed, and to evaluate whether employment and family work influence the health status of women with FM as it does for women in community studies. **METHODS:** Participants were 287 women recruited from 118 randomly selected rheumatology practices. They completed telephone interviews that collected data on demographic characteristics, health status, symptoms, family work, and social support. One hundred thirty-seven were employed and 150 were not employed. Formal statistical analysis, including estimation and testing, focused on the relationship between employment and 4health status measures: Modified Health Assessment Questionnaire (MHAQ), visual analog scale (VAS) for pain on the interview day, number of painful areas, and VAS for fatigue on the interview day. The relationship between employment and these measures was evaluated using analysis of variance, chi-square, linear regression, and ordinal logistic regression. **RESULTS:** The majority of participants reported high levels of symptoms and poor health status. In the bivariate analyses, employed women reported significantly less pain, less fatigue, and better functional status than those who were not employed. In the multivariate analyses, employment remained a significant factor in explaining number of painful areas, functional status (MHAQ), and fatigue, with employed women reporting better health status than those not employed. Employment was not associated with pain on the day of the interview when other factors were considered in the analysis. The psychological demands of family work were consistently related to all dependent measures of health status, as those with greater psychological demands reported worse health status. **CONCLUSION:** As in community studies, employed women with FM report better health status than women who are not employed. The demands of family work exert a serious and significant effect on every dimension of health status and should be the focus of greater clinical attention. Further followup will assess whether employment has a protective effect for women with FM as in community studies or whether women with less severe FM tend to remain in the workforce.

PMID: 12966614 [PubMed - in process]

34: J Urban Health. 2003 Sep;80(3):371-82.

Use of faith-based social service providers in a representative sample of urban homeless women.

Heslin KC, Andersen RM, Gelberg L.

Dr. Heslin is Assistant Professor in the Charles R. Drew University of Medicine and Science.

There are few quantitative studies on the characteristics of homeless persons who use faith-based social service providers. To help address the lack of information in this area, we analyzed survey data on 974 participants in the University of California at Los Angeles (UCLA) Homeless Women's Health Study, a representative sample of homeless women at shelters and meal programs in Los Angeles County. The primary objective of this analysis was to estimate the association of religious affiliation, race/ethnicity, income, and other client characteristics with the use of faith-based programs. In interviews at 78 homeless shelters and meal programs, study respondents provided information about their religious affiliation and other social and demographic characteristics. The names of the organizations were examined, and those with names that referenced specific religions or contained words connoting religiosity were designated as "faith based." At the time they were selected for study participation, 52% of respondents were using the services of faith-based providers. In multivariate logistic regression analysis, lower odds of using these providers were estimated for participants with no religious affiliation (compared with Christian respondents) and for African Americans and Latinas (compared with whites). There is evidence of systematic differences between the clients of faith-based and secular social service providers. The benefits of increased funding through a federal faith-based policy initiative may accrue primarily to subgroups of clients already using faith-based programs.

PMID: 12930877 [PubMed - in process]

35: JAMA. 2003 Sep 10;290(10):1331-6.

Comment in: JAMA. 2003 Sep 10;290(10):1377-9.

Recreational physical activity and the risk of breast cancer in postmenopausal women: the Women's Health Initiative Cohort Study.

McTiernan A, Kooperberg C, White E, Wilcox S, Coates R, Adams-Campbell LL, Woods N, Ockene J; Women's Health Initiative Cohort Study.

Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA 98109, USA. amctiern@fhcrc.org

CONTEXT: Women who are physically active have a decreased risk for breast cancer, but the types, amounts, and timing of activity needed are unknown. OBJECTIVE: To prospectively examine the association between current and past recreational physical activity and incidence of breast cancer in postmenopausal women. Design, Setting, and PATIENTS: Prospective cohort study in 74 171 women aged 50 to 79 years who were recruited by 40 US clinical centers from 1993 through 1998. MAIN OUTCOME MEASURE: Incident invasive and in situ breast cancer. RESULTS: We documented 1780 newly diagnosed cases of breast cancer over a mean follow-up of 4.7 years. Compared with less active women, women who engaged in regular strenuous physical activity at age 35 years had a 14% decreased risk of breast cancer (relative risk [RR], 0.86; 95% confidence interval [CI], 0.78-0.95). Similar but attenuated findings were observed for strenuous physical activity at ages 18 years and 50 years. An increasing total current physical activity score was associated with a reduced risk for breast cancer ($P = .03$ for trend). Women who engaged in the equivalent of 1.25 to 2.5 hours per week of brisk walking had an 18% decreased risk of breast cancer (RR, 0.82; 95% CI, 0.68-0.97) compared with inactive women. Slightly greater reduction in risk was observed for women who engaged in the equivalent of 10 hours or more per week of brisk walking. The effect of exercise was most pronounced in women in the lowest tertile of body mass index (BMI) (<24.1), but also was

observed for women in the middle tertile of BMI (24.1-28.4). CONCLUSIONS: These data suggest that increased physical activity is associated with reduced risk for breast cancer in postmenopausal women, longer duration provides most benefit, and that such activity need not be strenuous.

Publication Types: Multicenter Study

PMID: 12966124 [PubMed - indexed for MEDLINE]

36: JAMA. 2003 Sep 10;290(10):1377-9.

Comment on: JAMA. 2003 Sep 10;290(10):1323-30; JAMA. 2003 Sep 10;290(10):1331-6.

Physical activity in women: how much is good enough?

Lee IM.

Publication Types: Comment, Editorial

PMID: 12966131 [PubMed - indexed for MEDLINE]

37: JAMA. 2003 Sep 10;290(10):1312; author reply 1314-5.

Comment on: JAMA. 2003 May 21;289(19):2560-72.

The JNC 7 hypertension guidelines.

Nelson MR.

Publication Types: Comment, Letter

PMID: 12966113 [PubMed - indexed for MEDLINE]

38: Maturitas. 2003 Sep 25;46(1):45-57.

Associations between attitudes toward hormone therapy and current use of it in middle-aged women.

Ekstrom H, Esseveld J, Hovelius B.

Department of Family Medicine, Lund University, Lund, Sweden

OBJECTIVES: To investigate the association between attitudes toward hormone therapy (HT) and use of it and explanatory factors for the association found. METHODS: All women in two primary healthcare districts aged 45, 50, 55 or 60 in 2000 or 2001 (n=771) received a questionnaire consisting of quality-of-life instruments and items concerning menopause, health, healthcare, symptoms, socio-demographic factors and attitudes toward HT. RESULTS: A total of 564 women (74%) responded to the questionnaire. In the women with a positive or a neutral attitude, rather than a negative one, the age- and menopause-adjusted odds ratios for current HT use were 18.55 (95% CI 8.55, 40.11) and 2.61 (1.15, 5.93), respectively. Health-related factors, factors concerning one's own person and psychosocial factors were the groups of factors found to contribute to explaining the association between attitudes and current HT use. Together, the three groups of factors explained 42 and

98%, respectively, of a positive and a neutral attitude's association with current use of HT. Individual factors of importance in these factor groups were a feeling of being appreciated outside the home, satisfaction with one's work, marital status, own climacteric period, visits to a physician and past use of hormonal contraceptives. In contrast, level of education and the occurrence of cold sweats/hot flushes was not found to contribute to the explanation. CONCLUSIONS: Factors concerned with women's everyday life, contentment with oneself and use of healthcare services were of importance in explaining the associations between attitudes toward HT and current use of it. Consideration at these factors in counselling women about HT is recommended.

PMID: 12963169 [PubMed - in process]

39: Med Care. 2003 Aug;41(8):950-61.

Gender Differences in service connection for PTSD.

Murdoch M, Hodges J, Hunt C, Cowper D, Kressin N, O'Brien N.

Center for Chronic Disease Outcomes Research and Section of General Internal Medicine, Minneapolis VA Medical Center, and Department of Internal Medicine, University of Minnesota School of Medicine, Minneapolis Minnesota 55417, USA. murdo002@tc.umn.edu

BACKGROUND: Mentally ill female veterans obtain a smaller proportion of their care from Department of Veterans Affairs (VA) facilities than mentally ill male veterans do, possibly because women are less likely than men to be service connected for psychiatric disabilities. "Service connected" veterans have documented, compensative conditions related to or aggravated by military service, and they receive priority for enrollment into the VA healthcare system. OBJECTIVES: To see if there are gender discrepancies in rates of service connection for posttraumatic stress disorder (PTSD) and, if so, to see if these discrepancies could be attributed to appropriate subject characteristics (eg, differences in symptom severity or impairment). RESEARCH DESIGN: Mailed survey linked to administrative data. Claims audits were conducted on 11% of the sample. SUBJECTS: Randomly selected veterans seeking VA disability benefits for PTSD. Women were oversampled to achieve a gender ratio of 1:1. RESULTS: A total of 3337 veterans returned usable surveys (effective response rate, 68%). Men's unadjusted rate of service connection for PTSD was 71%; women's, 52% (P <0.0001). Adjustment for veterans' PTSD symptom severity or functional impairment did not appreciably reduce this discrepancy, but adjustment for dissimilar rates of combat exposure did. Estimated rates of service connection were 53% for men and 56% for women after adjusting for combat exposure. This combat preference could not be explained by more severe PTSD symptoms or greater functional impairment. CONCLUSIONS: Instead of a gender bias in awards for PTSD service connection, we found evidence of a combat advantage that disproportionately favored men. The appropriateness of this apparent advantage is unclear and needs further investigation.

PMID: 12886174 [PubMed - indexed for MEDLINE]

40: Menopause. 2003 Sep;10(5):456-464.

Soy protein isolate with isoflavones does not prevent estradiol-induced endometrial hyperplasia in postmenopausal women: a pilot trial.

Murray MJ, Meyer WR, Lessey BA, Oi RH, DeWire RE, Fritz MA.

Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, The Permanente Medical Group, Kaiser-Permanente, Sacramento, CA; Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, University of California, Davis, Sacramento, CA; Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility, University of North Carolina at Chapel Hill, Chapel Hill, NC; Department of Pathology, University of California, Davis, Sacramento, CA.

SUMMARY: **OBJECTIVE** To test the hypothesis that soy protein isolate (SPI) with isoflavones opposes the proliferative effects of exogenous estradiol (E2) on the endometrium after menopause. **DESIGN** Thirty-nine postmenopausal women were randomized to receive daily for 6 months either 0.5 mg E2 + placebo, 1.0 mg E2 + placebo, 0.5 mg E2 + 25 g SPI with 120 mg isoflavones, or 1.0 mg E2 + 25 g SPI with 120 mg isoflavones. Primary outcome measures were endometrial histology, ultrasound endometrial thickness, and Ki67 staining quantification, a marker of cellular proliferation. Secondary outcome measures were serum lipids and markers of bone resorption. **RESULTS** Endometrial hyperplasia, endometrial stromal and epithelial cellular proliferation, and sonographically measured endometrial thickness were similarly affected in all groups. SPI did not lessen the beneficial effects of E2 on lipids and markers of bone resorption. **CONCLUSION** In this pilot study, SPI with isoflavones did not protect the endometrium from E2-induced hyperplasia in postmenopausal women. If higher, long-term doses of isoflavone supplementation are found to be safe for postmenopausal women, then future studies combining E2 with isoflavones may be feasible as an alternative to traditional hormone replacement therapy.

PMID: 14501608 [PubMed - as supplied by publisher]

41: Menopause. 2003 Sep-Oct;10(5):465-76.

A systematic review of herbal medicinal products for the treatment of menopausal symptoms.

Huntley AL, Ernst E.

SUMMARY: **OBJECTIVE** Many women have turned to complementary and alternative medicines for relief from their menopausal symptoms. The prevalence of herbal medicinal product use among menopausal women highlights the need for investigation into these interventions. The aim of this study was to evaluate the benefit of herbal medicinal products for the treatment of menopausal symptoms by performing a systematic review of randomized clinical trials. **DESIGN** Literature searches of four computerized databases were done to identify randomized clinical trials of herbal medicinal products for the treatment of menopausal symptoms. Manufacturers of herbal products were contacted, and our own files were also searched. There were no restrictions on the language of publication. Trials were considered if the outcome measures related to the physical or psychological impact of menopause, whether by compendium scores, questionnaires, or women's symptom diaries, excluding studies describing artificially induced menopause. This review was not concerned with biochemical or pathological data. **RESULTS** Eighteen randomized clinical trials that fit our criteria were identified. These studies investigated black cohosh (n = 4), red clover (n = 4), kava (n = 3), dong quai (n = 1), evening primrose oil (n = 1), ginseng (n = 1), and combination products (n = 4). Trial quality was generally good, with 16 of 18 studies scoring 3 or more (maximum

5) on the Jadad Scale. CONCLUSIONS There is no convincing evidence for any herbal medical product in the treatment of menopausal symptoms. However, the evidence for black cohosh is promising, albeit limited by the poor methodology of the trials. The studies involving red clover suggest it may be of benefit for more severe menopausal symptoms. There is some evidence for the use of kava, but safety concerns mean this herbal product is not a therapeutic option at present. The evidence is inconclusive for the other herbal medicinal products reviewed.

PMID: 14501609 [PubMed - in process]

42: Menopause. 2003 Sep;10(5):482-487.

Effects of hormone replacement therapy on ocular function in postmenopause.

Affinito P, Sardo AD, Di Carlo C, Sammartino A, Tommaselli GA, Bifulco G, Loffredo A, Loffredo M, Nappi C.

Department of Gynecology and Obstetrics, and Pathophysiology of Human Reproduction, and the Department of Ophthalmology, University of Naples, Naples, Italy.

SUMMARY: OBJECTIVE To evaluate the effect of hormone replacement therapy on climacteric ocular complaints, lacrimal secretion, intraocular pressure (IOP), and corneal thickness. DESIGN A prospective, controlled, randomized study on 50 healthy women (mean age 53.4 +/- 3.8 years) at least 1 year after spontaneous menopause. Twenty-five women (group A) were treated with transdermal 17beta-estradiol (50 microg/day) and medroxyprogesterone acetate (10 mg/day) for 12 days per cycle. Twenty-five untreated women (group B) were used as a control group. All participants underwent eye examination at the beginning of the study and after 3 and 6 months of therapy to detect ocular diseases and to measure lacrimal secretion, IOP, and corneal thickness. RESULTS No significant differences were observed between the two groups at the beginning of the study. After 3 and 6 months of treatment, we observed a significant reduction in the percentage of women in group A affected by ocular symptoms and in the severity of symptomatology in comparison with baseline and with group B ($P < 0.01$). A significant increase of both basal and stimulated lacrimal secretion was observed after 3 months of therapy in group A in comparison with baseline ($P < 0.01$). There was a significant decrease of IOP ($P < 0.01$) after 3 months of therapy in group A ($P < 0.01$), and a slight, non-significant increase of corneal thickness was observed in group A at 3 and 6 months in comparison with basal values. CONCLUSION Our data suggest that hormone replacement therapy may exert a beneficial effect on ocular symptomatology, increase lacrimal secretion, reduce IOP, and increase corneal thickness.

PMID: 14501611 [PubMed - as supplied by publisher]

43: Menopause. 2003 Sep-Oct;10(5):412-9.

Recency and duration of postmenopausal hormone therapy: effects on bone mineral density and fracture risk in the National Osteoporosis Risk Assessment (NORA) study.

Barrett-Connor E, Wehren LE, Siris ES, Miller P, Chen YT, Abbott III TA, Berger ML, Santora AC, Sherwood LM.

University of California, San Diego, La Jolla, CA; University of Maryland, Baltimore, MD; Columbia University College of Physicians and Surgeons, New York, NY; Colorado Center for Bone Research, Lakewood, CO; and Merck & Co., West Point, PA.

SUMMARY: OBJECTIVES Results from the Women's Health Initiative showed that postmenopausal hormone replacement therapy (HRT) prevents fractures but has an overall unfavorable risk: benefit ratio, leading to the recommendation that HRT be used only for women with troublesome menopause symptoms, and for as short a time as possible. This recommendation has important implications for the timing and duration of HRT and the prevention of osteoporosis. The large number of women participating in the National Osteoporosis Risk Assessment (NORA) program provided the opportunity to evaluate bone mineral density (BMD) and 1-year fracture risk in analyses stratified by duration and recency of HRT. **DESIGN** Participants were 170,852 postmenopausal women aged 50 to 104, without known osteoporosis, who were recruited from primary physicians offices across the US. BMD was measured at one of four peripheral sites, and the 1-year risk of osteoporotic fracture was assessed by questionnaire. **RESULTS** At baseline, current HRT users had the highest T-scores at every age. Among current hormone users, women who had used HRT longest had the highest BMD levels. Women who had stopped HRT more than 5 years previously, regardless of duration of use, had T-scores similar to never-users. Current but not past hormone use at baseline was associated with a 25% to 29% lower risk of osteoporotic fracture ($P < 0.0001$) in 1 year, compared with nonusers. These findings were independent of age, ethnicity, body mass index, lifestyle, years postmenopausal, and site of BMD measurement. **CONCLUSIONS** We conclude that postmenopausal BMD and fracture are closely associated with current, but not prior, HRT use. Use of HRT for 5 years or less, as proposed for treatment of symptomatic women during menopause transition, is unlikely to preserve bone or significantly reduce fracture risk in later years.

PMID: 14501602 [PubMed - in process]

44: Neurobiol Aging. 2003 Sep;24(5):725-32.

Preliminary evidence that estrogen protects against age-related hippocampal atrophy.

Eberling JL, Wu C, Haan MN, Mungas D, Buonocore M, Jagust WJ.

Department of Neurology and Center for Neuroscience, University of California, Davis, CA 95616, USA. jleberling@lbl.gov

Few studies have examined gender differences in hippocampal volumes, and the potential effect of estrogen on these measures has not been well studied. We used MRI to measure hippocampal volumes in elderly Mexican American men and women subjects in order to determine if there were gender differences and if estrogen replacement therapy (ERT) had an effect on hippocampal volume in postmenopausal women. MRI measures of hippocampal volumes (normalized to intracranial volume) were compared in 59 women and 38 men. Further comparisons were made between men subjects, women subjects taking ERT, and women subjects not taking ERT. There were no significant effects of gender on normalized hippocampal volumes. However, women subjects taking ERT had larger right hippocampal volumes than women subjects not taking ERT and larger anterior hippocampal volumes than men subjects and women subjects not taking ERT. These findings suggest a neuroprotective effect of estrogen.

PMID: 12885580 [PubMed - indexed for MEDLINE]

45: Neurology. 2003 Sep 1;61(6 Suppl 2):S27-34.

Reproductive dysfunction in women with epilepsy.

Isojarvi JI.

Department of Neurology, University of Oulu, Oulu, Finland.

Reproductive endocrine disorders, such as polycystic ovary syndrome (PCOS), hypothalamic amenorrhea, premature menopause, and hyperprolactinemia, are reported to be more common in women with epilepsy than in the general female population. Epilepsy itself may affect reproductive endocrine function. For example, the prevalence of PCOS appears to be high even among women with epilepsy who do not take antiepileptic drugs (AEDs). However, AEDs also induce various changes in endocrine function. The hepatic enzyme-inducing AED phenytoin and carbamazepine (CBZ) have been shown to increase serum levels of sex hormone-binding globulin (SHBG). This increase leads in time to a diminished estradiol: SHBG ratio and decreased bioactivity of estradiol, which may result in menstrual disorders in some women receiving long-term CBZ treatment. Enzyme-inducing AEDs also can reduce the efficacy of oral contraceptives. In women with epilepsy who are treated with valproate (VPA), especially in those who have gained weight during treatment, polycystic ovaries, hyperandrogenism, and menstrual disorders appear to be common. After the start of VPA therapy in a woman with epilepsy, the length of the menstrual cycles and body weight should be monitored. Transvaginal ultrasonography of the ovaries is indicated if the menstrual cycles are prolonged and serum testosterone levels are elevated, especially if there is associated weight gain. The endocrine effects of the new AEDs have not been widely studied. However, treatment with these agents should be considered in women who develop reproductive endocrine dysfunction during treatment with the older AEDs.

PMID: 14504307 [PubMed - in process]

46: Neurology. 2003 Sep 1;61(6 Suppl 2):S16-22.

Menopause and bone density issues for women with epilepsy.

Harden CL.

Comprehensive Epilepsy Center, New York-Presbyterian Hospital-Weill Medical College of Cornell University, New York, NY.

Menopausal women with epilepsy present several unique management challenges. They have an elevated risk for osteoporotic fracture because of the adverse effects of antiepileptic drugs (AEDs) on bone metabolism, combined with the chance of trauma during seizures and the subtle effects of AEDs on coordination that promote falling. A uniform effect of AEDs on vitamin D metabolism or bone turnover has not yet been revealed by clinical or basic studies, although the enzyme-inducing AEDs appear to decrease serum vitamin D levels. However, bone density is frequently decreased in patients with epilepsy. Clinicians must be familiar with the recommendations for calcium and vitamin D supplementation and recognize when to refer patients for bone density evaluations. Perimenopause is a transition during which women with epilepsy are at risk for increased seizure frequency, probably because of alterations in the estrogen: progesterone ratio over this period. Women with epilepsy who have

had a catamenial seizure pattern during their reproductive years are at particular risk for an increase in seizure frequency during perimenopause but may experience a seizure reduction after becoming menopausal (cessation of menses for 1 year). These women appear to represent a subgroup of patients with epilepsy who have heightened sensitivity to endogenous reproductive hormone levels. The use of hormone replacement therapy may also increase seizure occurrence. Finally, the age at menopause may be reduced in women with poorly controlled seizures. This is probably related to an effect of seizures on hypothalamic function, although primary ovarian dysfunction may also be operative in this setting.

PMID: 14504305 [PubMed - in process]

47: Nurs Res. 2003 Sep-Oct;52(5):338-43.

Menopausal hot flash frequency changes in response to experimental manipulation of blood glucose.

Dormire SL, Reame NK.

SUMMARY: **OBJECTIVE** Although a majority of women (80%) at menopause experience hot flashes, the symptoms' physiological trigger has yet to be identified. To determine the relationship between glucose availability and hot flashes in menopausal women, hot flash frequency was compared between intervals while the subjects were fasting and/or infusing in a sample of menopausal women (38-55years of age). **DESIGN** An experimental study was conducted in 10 postmenopausal women taking hormone therapy (HT) between the ages of 38 and 55. Following a clinic visit to screen for general health and absence of diabetes, HT participants were asked to stop the medication for 7 to 10 days and to maintain a diary of hot flash frequency. When hot flashes were experienced at least four times per day in a consecutive 3-day period, participants were admitted to the General Clinical Research Center for a 30-hour experimental protocol, including frequent blood sampling and two experimental periods of intravenous infusion of glucose or normal saline. Blood glucose levels were manipulated to provide conditions of postprandial versus fasting states. **RESULTS** There was a significant reduction in the incidence of hot flashes during the experimental elevation of glucose concentrations (130 to 140 mg/dl) compared to the fasting state (<110mg/dl) ($t = -2.4$, $df = 9$, $p = .04$). **CONCLUSIONS** Conditions of fasting may stimulate the trigger mechanism for menopausal hot flashes.

PMID: 14501548 [PubMed - in process]

48: Obstet Gynecol. 2003 Sep;102(3):565-70.

Are smoking-associated cancers prevented or postponed in women using hormone replacement therapy?

Olsson H, Bladstrom A, Ingvar C.

Department of Oncology, University Hospital, Lund, Sweden. hakan.olsson@onk.lu.se

OBJECTIVE: To investigate the relationship between hormone replacement therapy (HRT), smoking, and cancer incidence. **METHODS:** Baseline interviews were conducted from 1990 to 1992 in a population-based cohort of 29,508 Swedish women aged 25-65 years with no history of cancer. Cancer incidence in the cohort was assessed through December 31, 1999, with the Swedish Cancer Registry, the

Population Census Registry, and the Cause of Death Registry. RESULTS: When follow-up ended, the cohort included 226,611 person-years. A total of 1145 malignancies were diagnosed (observed), and 1166.6 were expected (standardized incidence ratio 0.98; 95% confidence interval [CI] 0.93, 1.04). Women who had experienced a natural menopause and had ever used HRT had no increased incidence of cancer overall (standardized incidence ratio 1.03; 95% CI 0.88, 1.19). Long-term HRT users who smoked had a decreased incidence of smoking-related cancers, such as the oral cavity, pharynx, hypopharynx, larynx, esophagus, lung, cervix, and bladder (standardized incidence ratio 0.24; 95% CI 0.08, 0.76). The effect was seen regardless of the type of HRT (progestin versus non-progestin-containing preparations) used and number of cigarettes smoked. The protective role of HRT for colon cancer was evident among both smokers and nonsmokers. An increased incidence of endometrial cancer was seen only for nonsmokers who used HRT. CONCLUSION: Our data indicate that HRT use protects women against smoking-associated cancers. This effect occurs regardless of the type of HRT and the amount of smoking.

PMID: 12962944 [PubMed - in process]

49: Oncol Nurs Forum. 2003 Sep-Oct;30(5):834-40.

Family beliefs about diet and traditional chinese medicine for Hong Kong women with breast cancer.

Simpson PB.

Department of Nursing Studies, University of Hong Kong, China.
psimpson@hkucc.hku.hk

PURPOSE/OBJECTIVES: To explore beliefs about diet and traditional Chinese medicine related to the breast cancer experience of Hong Kong Chinese women and their families. DESIGN: Interpretive phenomenology. SETTING: Hong Kong, China. SAMPLE: A purposive sample of 20 Hong Kong Chinese women diagnosed with breast cancer at various stages of the illness trajectory and at least one other family member. METHODS: A semi-structured, three-hour interview was translated, transcribed, and back-translated. FINDINGS: Many women and their family members believed that diet was responsible for their cancer and recurrence. They integrated their cultural beliefs about diet and traditional Chinese medicine to manage illness symptoms and prevent recurrence. Families were anxious and confused about conflicting messages from various sources about dietary practices to promote their health and prevent recurrence. CONCLUSIONS: Food and diet alternatives should be discussed with the understanding that beliefs about diet and traditional Chinese medicine are embedded in culture and that many Chinese women and their families seek a combination of Eastern Chinese medicine and Western medicine strategies to manage the illness trajectory. IMPLICATIONS FOR NURSING: Many Chinese families have different beliefs about food and diet and the role that food plays in managing the cancer experience. Often, Chinese people will not seek clarification if they do not understand information. If information does not fit with their predominant belief systems, families may not implement it, nor will they discuss a situation if they think the conversation will result in a relationship of conflict with healthcare providers.

PMID: 12949596 [PubMed - in process]

50: Proc Natl Acad Sci U S A. 2003 Sep 2;100(18):10506-11. Epub 2003 Aug 18.

Divergent impact of progesterone and medroxyprogesterone acetate (Provera) on nuclear mitogen-activated protein kinase signaling.

Nilsen J, Brinton RD.

Department of Molecular Pharmacology and Toxicology and Program in Neuroscience, Pharmaceutical Sciences Center, University of Southern California, Los Angeles, CA 90089, USA. rbrinton@hsc.usc.edu

The impact of progestins on estrogen-inducible mechanisms of neuro-protection was investigated. Previously, we showed that estrogen and progesterone are neuroprotective against excitotoxicity, whereas the synthetic progestin medroxyprogesterone acetate (MPA; Provera) is not. Here, we demonstrate that 17 β -estradiol (E2) and progesterone (P4) treatment of hippocampal neurons attenuated the excitotoxic glutamate-induced rise in intracellular calcium concentration. Although MPA had no effect alone, MPA completely antagonized E2-induced attenuation of intracellular calcium concentration. Activation of extracellular receptor kinase (ERK) is required for estrogen-induced neuroprotection and calcium regulation. Paradoxically, E2, P4, and MPA all elicited similar rapid and transient activation of ERK, presenting a contradiction between the dependence on ERK for gonadal hormone-induced neuroprotection and the lack of neuroprotection induced by MPA. Subcellular analysis of ERK demonstrated that the phospho-ERK signal is transduced to the nucleus only by E2 and P4, not by MPA. These results indicate that the profile of nuclear translocation of ERK is consistent with the neuroprotective profile. Further, the E2-induced nuclear translocation of ERK was blocked by co-administration of MPA. Results of this study reveal that nuclear ERK induction by ovarian steroids is predictive of the neuroprotective effects of estrogen and progestin treatments, revealing a hitherto unrecognized divergence of progestin signaling through the src/MAPK pathway. These results have much broader implications encompassing the impact of progestins on estrogen-mediated effects in multiple tissues. The recent results from the Women's Health Initiative trial, which used MPA as the progestinal agent, indicate that differences between progestin formulations are crucial to health outcomes in women.

PMID: 12925744 [PubMed - in process]